(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date 21 May 2004 (21.05.2004)

PCT

(10) International Publication Number WO 2004/042360 A3

(51) International Patent Classification⁷: A6

A61K 51/00

(21) International Application Number:

PCT/US2003/035107

(22) International Filing Date:

4 November 2003 (04.11.2003)

(25) Filing Language:

English

(26) Publication Language:

94607-5200 (US).

English

(30) Priority Data: 60/423,964

4 November 2002 (04.11.2002) U

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(74) Agents: WARD, Michael, R. et al.; Morrison & Foerster LLP, 425 Market Street, San Francisco, CA 94105-2482 (US). (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 10 September 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DEUTERATED GLUCOSE OR FAT TOLERANCE TESTS FOR HIGH-THROUGHPUT MEASUREMENT OF THE METABOLISM OF SUGARS OR FATTY ACIDS IN THE BODY

(57) Abstract: Provided herein are methods for determining the metabolism of one or more sugars and/or fatty acids, and applications thereof. Such applications include determining the rate of glycogen synthesis and glycolysis, which are believed to be early markers for predicting elevated risk of diabetes and cardiovascular disease. Other applications include methods for screening drugs that effect sugar and/or fatty acid metabolism. The methods are useful for at least partially characterizing drugs for desirable or undesirable (toxic) characteristics. Drugs that are at least partially characterized using the methods of the invention can then be further developed in preclinical testing and clinical trials. Such drugs may be found to be useful in treating obesity, diabetes, cardiovascular disease, and other disorders of metabolism.



INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/35107

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : A61K 51/00 US CL : 424/1.81 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S.: 424/1.73, 1.81, 9.1, 9.2 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) registry, biosis, medline, uspatfull, embase, caplus		
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	Citation of document, with indication, where appropriate, of the relevant passages US 2004/0115131 A1 (HELLERSTEIN) 17 June 2004 (17.06.2004), see entire document,	
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Date of the actual completion of the international search	Date of mailing of the international search report	
21 June 2004 (21.06.2004)	Authorized officer D. L. Jones A. Roberts for Telephone No. (571) 272-1600	
Name and mailing address of the ISA/US	Authorized officer	
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